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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/724,692	12/02/2003	Kathrin Michl	246049US0	1976
22850	7590	03/14/2007		
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			EXAMINER JACKSON, MONIQUE R	
			ART UNIT	PAPER NUMBER
			1773	

SHORTENED STATUTORY PERIOD OF RESPONSE	NOTIFICATION DATE	DELIVERY MODE
3 MONTHS	03/14/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Notice of this Office communication was sent electronically on the above-indicated "Notification Date" and has a shortened statutory period for reply of 3 MONTHS from 03/14/2007.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@oblon.com
oblonpat@oblon.com
jgardner@oblon.com

Office Action Summary

Application No.

10/724,692

Applicant(s)

MICHL ET AL.

Examiner

Monique R. Jackson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 December 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4,6-22 and 24-42 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4,6-22 and 24-42 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The amendment filed 12/19/06 has been entered. New claims 40-42 have been added. Claims 1, 2, 4, 6-22 and 24-42 are pending in the application. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 103

2. Claims 1, 2, 4, 6-22 and 24-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dreher et al for the reasons recited previously and restated below.

Dreher et al teach a formaldehyde-free thermally hardenable polymer binding agent in the form of a powder, in particular for fibrous and grainy materials including wood chips, wood fibers, glass fibers, etc.; wherein the binding agent includes 87.5-12.5wt% of polymer A1, 87.5-12.5wt% A2, 0.1 to 30wt%, of at least one amine containing hydroxyl group, wherein the polymer A1 is preferably a copolymer of 80-100wt% of a principal monomer including styrene and/or olefins such as ethylene, propylene, butene, and isotene (*reads on the instantly claimed copolymer*); with suitable comonomers including carboxylic acids or their anhydrides including maleic anhydride (Abstract; Claims; Col. 3-4; Col. 22, lines 23-35; Col. 23, lines 37-35; Col. 23, line 65-Col. 24, line 4; Col. 24, lines 44-50.) Dreher et al further teach that the polymer A2 includes at least one amine with at least one hydroxyl group incorporated therein (*reads upon the instantly claimed "crosslinker"*), with particularly maleic anhydride and may also include 0 to 20wt% of other monomers such as styrene, olefins, (meth)acrylates, and mixtures thereof (Col. 6-9.) Dreher et al also teach examples utilizing styrene in polymer A1 and maleic anhydride in polymer A2 but do not specifically teach that polymer A1 includes a copolymer of maleic anhydride with olefins and/or styrene as instantly claimed. However, Dreher et al clearly

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teach that maleic anhydride is a suitable comonomer with the preferred principal monomer styrene and/or other principal monomers such as the cited olefins, and hence one having ordinary skill in the art at the time of the invention would have been motivated to utilize styrene and/or any olefin as the comonomer with maleic anhydride particularly considering SMA and maleic anhydride/ α -olefin copolymers are known thermosetting copolymers utilized in the art. Dreher et al further teach that other crosslinkers or reaction accelerants may be included in the composition but do not specifically teach the crosslinkers as recited in instant claims 33 and 40, however, the claimed crosslinkers are known crosslinking agents for maleic-anhydride copolymers and would have been obvious to one having ordinary skill in the art at the time of the invention. Further, one having ordinary skill in the art at the time of the invention would have been motivated to utilize routine experimentation to determine the optimum composition of A1 and A2 to provide the desired curing and mechanical properties for a particular end use. With respect to Claims 41-42, the Examiner notes that the crosslinking catalysts are not positively recited as part of the composition considering the catalyst is optional in the parent claim.

Response to Arguments

3. Applicant's arguments filed 12/19/06 have been considered but are not persuasive. The Applicant first argues that the composition taught by Dreher et al includes a second polymer while the instant invention is now drafted in "consisting of" language and does not include a second polymer. However the Examiner notes that the second polymer of Dreher et al, the water-soluble polymer A2, reads upon the claimed "40% by weight to 60% by weight...of least one pulverulent crosslinker" of Claim 1 as well as the broadly recited "further additives" such as the "rheological assistants", "filming agents" and "cocrosslinkers". Though the Applicant argues

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that instant claim 1 recites specific crosslinkers, the Examiner notes that the list of crosslinkers has been cancelled from Claim 1 and hence Applicant's arguments are moot. In terms of Claims 33 and 40, which do in fact claim the list of crosslinkers, as recited in the prior office action and restated above, Dreher et al further teach that other crosslinkers or reaction accelerants may be included in the composition but do not specifically teach the claimed crosslinkers. However, as stated previously, the claimed crosslinkers are known, obvious crosslinking agents for maleic-anhydride copolymers in the art and would have been obvious to one having ordinary skill in the art at the time of the invention and considering the Applicant did not argue this position, the Examiner maintains that the use of these crosslinkers would have been obvious over the teachings of Dreher et al. Lastly, the Applicant argues that the instant invention provides excellent tack under anhydrous application conditions which Dreher et al do not disclose or suggest, and that the experimental data demonstrates these "advantages" and hence rebuts the obviousness rejection. However, the Examiner notes that the instant properties are not part of the claimed invention and further notes that the Applicant has failed to provide a clear showing of unexpected results over the closest prior art Dreher et al in order to overcome the rejection. Hence, the Examiner maintains her position that the instant invention, as claimed, is unpatentable over the teachings of Dreher et al.

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after


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the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Monique R. Jackson whose telephone number is 571-272-1508. The examiner can normally be reached on Mondays-Thursdays, 8:00AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carol Chaney can be reached on 571-272-1284. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Monique R. Jackson
Primary Examiner
Technology Center 1700
March 7, 2007